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AAAI News

The following are news releases from AAAI 90, held July 30 – August 3, in Boston.

Bobrow Challenges AI Community at AAAI-90

In the opening plenary session at the American Association for Artificial Intelligence Conference in Boston this week, Dr. Daniel G. Bobrow, of Xerox Palo Alto Research Center and President of AAAI, challenged the audience to move towards a far more "interactive view — between agents, people and technologies. Our real challenge," he said, "is not just to build intelligent systems, but to help corporations and government build intelligent organizations. We need to help people expand their viewpoints and improve their capabilities by distributing knowledge. AI should play a key role in systems that enhance the human values of the world we live in."

Dr. Sam Fuller, Vice President of Digital Equipment, delivered the other opening address on "Why technology transfer is so tough." He noted that, "Some of the most important results of technology transfer will be the unexpected." He emphasized that people transfer is one of the most important ingredients for successful technology transfer.

AAAI-90 reported paid attendance of 4200. The AI On-Line sessions, with 30 users presenting, proved a major attraction with overflow audiences. The presentations focused on the approaches and lessons from specific AI knowledge-based system deployment.

The 1991 AAAI National Conference and the Innovative Application Conference will both take place in Anaheim, California July 14-19, 1991.

AI on-line Panels Highlight AAAI-90

BOSTON, AUGUST 3, 1990 — The six "AI On-Line" panels provided an interactive and user friendly highlight to overflow audiences at the 10th American Association of Artificial Intelligence Conference here this week. Thirty users of AI systems, from leading corporations and government agencies, presented specific deployments, detailing opportunities and problems along with benefits and lessons learned.

Each of the panelists had success stories to contribute. A number of common key points emerged about AI knowledge-based systems from the six sessions. The 30 presenters and the audiences generally agreed these issues affect success.

One of the more surprising conclusions was that the most important contribution of an AI knowledge-based approach is often helping the organization clarify and understand the problem AI is asked to solve. These are among the other results presented on AI experience in real-world application.

1. Integrating AI with traditional skills and programming and systems is usually the most effective approach, from the standpoints of both cost and acceptance.
2. AI may be only part of the system/solution, but it is increasingly the part that makes the whole work.
3. System selection is critical — it's important to select problems "worth solving, problems on which there is management agreement that solutions will provide significant benefits."
4. It's almost essential to have "a champion" outside the AI/IS area, and "smaller champions" throughout the organization, particularly in operations to start the AI process.
5. User involvement is necessary. The system must be a team effort, in terms of both functional and cultural/political issues.
6. Show and tell — frequently, at least every 2-3 months during systems development and deployment.
7. Bring your problems to the front. Don't hide them, and don't be afraid to spell out areas of uncertainty —in either cost or function.
8. Make sure everyone knows at the start that the AI systems (like others) will usually take more commitment and time than estimated. This is particularly true of the expert's" time because he/she is so often operating intuitively and debriefing is not easy.
9. AI software is not mature, but don't be afraid of fuzziness. The results are worth the effort.
10. Most important, AI systems work— and your organizations (as ours) will simply not be competitive without it.

AAAI Announces '91 Conferences

The American Association for Artificial Intelligence has announced that, starting next year, its National Conference on Artificial Intelligence and Innovative Applications of Artificial Intelligence Conference will be staged at the same time and place.

The 1991 AAAI Conferences will take place in Anaheim, California July 14-19, 1991. The National Conference focuses on the development of new science. The Innovative Applications Conference deals with deployment of technology, why and how it is proving useful.

"This is a recognition of changing reality," said AAAI President Daniel Bobrow. "As AI moves more broadly into the mainstream of information systems, we see increasing need for the people who develop AI technology to see how it is working and for the people who use AI to learn what technology is being developed." We're seeing dramatic evidence this year of AI deployment in a wide variety of traditional and new applications. Technology advances have combined with those in computing capability to make possible real-time

AI solutions that were only theory 12 to 18 months ago."

Bobrow pointed out that historically the National Conference has been more academically oriented while the Innovative Applications Conference dealt with AI systems in use. He noted that many of the attendees wanted to be at both conferences, and time and fiscal constraints are making this more and more a problem.

While the laboratory and everyday AI worlds are coming closer together, AAAI intends to maintain separate focus for each at next year's conference. The popular Tutorials and Technical sessions will continue to help define and move ahead basic AI research and technology. The deployed application side of the conference will be increased significantly with parallel offerings.

NEW JOURNAL

The International Journal of Systems Automation Research and Applications (SARA)

A new quarterly refereed journal of the International Society for Productivity Enhancement (ISPE)

The purpose of this journal is to promote a better understanding of systems considerations in interdisciplinary automation by providing an international forum for the dissemination of scientific work on systems automation using the computer technologies.

For more information regarding submissions and subscriptions contact:
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AAAI-90 Gives Strong Finish with Craig Fields

BOSTON, AUGUST 3, 1990 - Dr. Craig Fields, President of the Microelectronics & Computer Technology Corporation (MCC), provided an impressive closing to the week-long AAAI-90 National Conference in Boston. The 10th annual American Association for Artificial Intelligence meeting concluded with Dr. Fields's talk on August 3, 1990.

Fields said simply, "AI is absolutely the most important technology now being developed — and will be for some time to come. Because of the windows it opens, it may be more important than the invention of printing."

He noted that, "Some of our philosophers say AI has its limitations. That has about as much validity as the predictions of those who said aircraft will never break the sound barrier. We keep pushing out the frontiers. AI has made and continues to make impressive gains, producing important results."

Answering the question, "What could AI do tomorrow?", Fields listed these possible major AI contributions in areas that are critical for U.S. and corporate competitiveness.

1. White collar manufacturing — AI programs that optimize factory schedules, including order fulfillment, in ways that lead to lower capital requirements and reduced time to market
2. Information infrastructure — here, Fields said, the problem of creating what we need is more finance than technology, and AI can play a key role in designing the libraries and networks that are essential
3. Entry level worker training — progress here has been disappointing to date, Fields noted, but it is so critical to our future that we cannot leave any options unexplored, and AI offers fascinating possibilities

Looking elsewhere, Fields stressed the overwhelming importance of electronics today. "Most industries depend on electronics. Electronics is the single largest employer in the U.S. . . . We need an electronic computing highway to take us into the future, and we're falling behind. We don't have the vitality in our effort that other countries seem to have." He added that without strong consumer electronics, we are not going to have the infrastructure we need to be competitive.

Questioned about the U.S. competitive position, Fields detailed six areas where this country leads - and an equal number where we are falling behind.

The U.S. leads, Fields said, in:

- Customizing software
- Artificial Intelligence
- Scalable parallel computing
- Distributed computing
- User interfaces
- Security of systems

The U.S. is falling behind today in

- Component business (semiconductors, batteries, etc.)
- Consumer electronics
- capital investment — and patience
- Information infrastructure (fiber optic highways, etc.)
- Entry level workers (noting that industry is paying the same amount to train new workers as has been spent on their entire K-12 education)
- Quality — and lead time from idea to market

Urging his audience to understand the importance of electronics, Fields read a list of the brand names we'll be seeing on computers. It included Adidas, Nikon and Kodak, Chevrolet and Mercedes. These and other products will be more and more dependent on computers built into their products, so in effect they are in the computer business. That means software, including AI, built into everything we see or do.

Dr. Daniel Bobrow, Xerox Palo Alto Research Center and President of AAAI, introduced Fields. Bobrow noted that Fields was one of the few people in government who had ever worked his way to the top (as Director of DARPA), and that the country is in his debt for his understanding of the need for infrastructure as well as projects. Bobrow, in his opening address to the conference, threw out a challenge to the AI community, declaring, "There is too much 'us and them' in the AI world today. Our real challenge is not just to build intelligent systems, but to help corporations and government build intelligent organizations. We need to use AI to help people expand their viewpoints and improve their capabilities by distributing knowledge power."